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COMMITTEE ON THE PEACEFUL
USES OF OUTER SPACE

QUESTIONNAIRE ON POSSIBLE LEGAL ISSUES WITH REGARD TO AEROSPACE OBJECTS: REPLIES FROM MEMBER STATES

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INTRODUCTION

1. At its thirty-eighth session, the Committee on the Peaceful Uses of Outer Space noted that, at the thirty-fourth session of the Legal Subcommittee, the Working Group of the Subcommittee on agenda item 4, on matters relating to the definition and delimitation of outer space and to the character and utilization of the geostationary orbit, had finalized the text of a questionnaire on possible legal issues with regard to aerospace objects. The Committee agreed with the Legal Subcommittee (A/AC.105/607 and Corr.1, para. 38) that the purpose of the questionnaire was to seek the preliminary views of States members of the Committee on various issues relating to aerospace objects. The Committee also agreed that the replies to the questionnaire could provide a basis for the Legal Subcommittee to decide how it might continue its consideration of agenda item 4. The Committee further agreed with the Subcommittee that States members of the Committee should be invited to give their opinions on those matters.[1]

2. The Secretary-General sent a note verbale dated 21 August 1995 to all States members of the Committee on the Peaceful Uses of Outer Space inviting them to communicate to the Secretariat the above-mentioned information so that the Secretariat could prepare a report containing that information for submission to the Legal Subcommittee at its thirty-fifth session.

3. Information received from Member States by 15 February 1996 is contained in document A/AC.105/635.

4. The present document was prepared by the Secretariat on the basis of information received from Member States between 16 February and 15 March 1996.

REPLIES RECEIVED FROM MEMBER STATES*

Question 1: Can an aerospace object be defined as an object which is capable both of travelling through outer space and of using its aerodynamic properties to remain in airspace for a certain period of time?

Republic of Korea

In principle, an aerospace object can be defined as such. However, it is necessary to clarify the definition of "for a certain period of time" because it is too vague an expression.

Russian Federation

Such a definition is possible. But it is based on just two criteria — the capability of an object to travel through outer space and its capability to remain in airspace for a certain period of time. As aerospace objects become more sophisticated in design, it is clear that their definition will have to be based on additional criteria. In principle, it is possible at present to state that there are two basic programmes (purposes) for using aerospace objects:

(1) Undertaking a flight from one point on the Earth to another (for this purpose the object may undertake part of its flight in outer space, not attaining cosmic speed); and

(2) Delivering a crew and/or payload into outer space and back to the Earth (its aerodynamic properties at the time of take-off and landing enable the object to remain in airspace for a certain period of time).

Question 2: Does the regime applicable to the flight of aerospace objects differ according to whether it is located in airspace or outer space?

Republic of Korea

It is closely related to the question whether an aerospace object is a space object which is subject to space law or is an aircraft which is subject to air law and to the question of the definition and delimitation of outer space. Under the present international legal system, the legal regime applicable to an aerospace object is different according to its location: the Chicago Convention regime is applied to aircraft in airspace and space law to a space object in outer space.

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* The replies are reproduced in the form in which they were received.

Russian Federation

The legal regime applicable to an aerospace object's flight must differ according to the purpose of the flight and must be determined in accordance with the corresponding norms of international space or air law; that requires further development of certain norms of international air law and international space law, specifically those relating to international liability for any damage sustained, rescue of crew, etc.

The regime of an aerospace object undertaking an Earth-to-Earth mission without entering outer space is determined by the norms of international air law while an aerospace object undertaking an Earth-orbit mission comes within the jurisdiction of international space law.

Question 3: Are there special procedures for aerospace objects, considering the diversity of their functional characteristics, the aerodynamic properties and space technologies used, and their design features, or should a single or unified regime be developed for such objects?

Republic of Korea

The current international legal system does not provide for any special legal procedures for aerospace objects which take into account the diversity of their functional characteristics, their aerodynamic properties and their design features. Therefore, it is necessary to prepare a unified regime for aerospace objects in order to prevent legal disorder which might arise as the outer space activities using aerospace objects are gradually increasing. Furthermore, such special procedures as a unified regime need to be prepared by a neutral relevant international organization.

Russian Federation

There are no generally accepted procedures for aerospace objects. The argument could be put forward, somewhat cautiously, that at the present stage of the development of aerospace objects there is no very urgent need to develop such procedures. However, as these objects become more and more diversified and their number increases, and as the probability increases of various incidents occurring in connection with their operation, the question of supplementing and elaborating norms in the area of space and air law to take account of the special features of aerospace objects might well actually arise. As far as one can tell at present, the issue of paramount importance will be whether or not procedures should be brought into effect for notifying States of the passage of aerospace objects through airspace over their territories.

The regime applied (emphasizing principles and norms of international air law or international space law) will most probably be established with reference to a number of features, the most fundamental being the designation of the aerospace object, i.e., according to whether the aerospace object is a transportation system intended for the carriage of a payload and/or passengers from one point on the Earth to another, or, alternatively, whether it is designed to be launched into outer space.

Question 4: Are aerospace objects while in airspace considered as aircraft, and while in outer space as spacecraft, with all the legal consequences that follow therefrom, or does either air law or space law prevail during the flight of an aerospace craft, depending on the destination of such a flight?

Republic of Korea

According to the spatial approach, an aerospace object is deemed as an aircraft subject to air law in airspace and is deemed as a space object subject to space law in outer space. But those who are following the functional approach assert that the legal regime of an aerospace object is decided depending on the purpose or function of its flight. Given such legal problems as sovereignty over airspace, aerial safety and so on, the spatial approach has more merit than the functional approach under the present international legal system because the former can more easily decide the law to be applied. Until special procedures about an aerospace object are prepared, the aerospace object flying in the airspace, especially in a certain State's territorial airspace, is considered as an aircraft and the aerospace object located in outer space is considered as a space object which is subject to space law.

Russian Federation

It can be argued that the criterion to be applied in determining whether an aerospace object comes within the jurisdiction of international space law or that of international air law is the purpose of the object's flight. As aerospace technology becomes increasingly sophisticated, the question might arise as to whether the existing provisions of international space and air law need to be supplemented.

Question 5: Are the take-off and landing phases specially distinguished in the regime for an aerospace object as involving a different degree of regulation from entry into airspace from outer space orbit and subsequent return to that orbit?

Republic of Korea

Under the present legal system, there is no special regime which distinguishes the take-off and landing phases of an aerospace object as involving a different degree of regulation from entry into airspace from outer space orbit and subsequent return to that orbit. However, in case of its passage over a certain State's territorial airspace after entry into airspace, international air law or the relevant State's domestic law can be applied to the aerospace object in relation to the country's sovereignty and security problem.

Russian Federation

At the present time, the practical approach to tackling the problem of establishing such a distinction entails elaborating appropriate criteria and mechanisms for regulating these aspects of the regime governing aerospace objects and subsequently codifying them in norms of international space law.

Question 6: Are the norms of national and international air law applicable to an aerospace object of one State while it is in the airspace of another State?

Republic of Korea

When an aerospace object is located in the territorial airspace of another State, it may be subject to international air law as well as to relevant domestic air law by reason of national security or aerial safety as long as it has characteristics both of an aeroplane which is subject to air law and a space object which is subject to space law.

Russian Federation

With regard to aerospace objects performing Earth-orbit flights with flight paths passing through the airspace of another State, it is worth while examining the possibility of codifying in treaty form whatever norm is agreed upon for the peaceful (innocent) passage through the airspace of such States when the object enters orbit and when it returns from orbit. In this regard, it is possible that the special features of Earth-to-Earth and Earth-orbit flights will need to be taken into consideration, since, in the case of objects performing Earth-orbit flights, it will be almost impossible in practical terms to meet all the different requirements of air law.

Question 7: Are there precedents with respect to the passage of aerospace objects after re-entry into the Earth's atmosphere and does international customary law exist with respect to such passage?

Republic of Korea

There are no international customary laws or precedents with respect to the passage of an aerospace object after re-entry into the Earth's atmosphere. Until now many space objects were launched into outer space, but it does not mean that its passage over airspace after re-entry into the Earth's atmosphere constitutes any precedents or customary law. The fact that most of the countries did not raise any objection to the passage of space objects over their airspace does not signify their approval of the passage as international practice or precedents; they just did not have any information about the passage and there was no special perceptible disadvantage with the passage at that time.

Russian Federation

There are such precedents. According to the international practice which is now evolving, a State's sovereignty does not extend to the space located above the orbit of least perigee of an artificial Earth satellite (approximately 100 km above sea level). There have been relatively few instances of space objects flying over the territories of foreign States. In cases where the object has flown at an altitude below the above-mentioned level, the registering States have furnished the relevant information to the States whose territory was thus overflown on the basis of goodwill. For example, in March 1990 the United States of America communicated to the USSR information regarding the final flight stage of the Atlantis multi-use craft. The information furnished contained general data on the trajectory of the planned flight of the shuttle above a

specific swathe of eastern regions of the USSR and indicated the period of time during which the craft was expected to be located above the territory of the Soviet Union during its descent from orbit, its minimum flight altitude in that airspace before its entry into the Earth's atmosphere above open sea, and technical details of the craft's state. Information received only a few hours before the overflight took place was transmitted as a courtesy. An agreement was reached establishing that the fact that this information was furnished should not be deemed to set a precedent. None the less, the transmission of this kind of information suggests the broad lines of the procedures to be followed in notifying States.

Provisions of international customary law with respect to the passage of aerospace objects after re-entry into the Earth's atmosphere are currently in the process of being elaborated.

Question 8: Are there any national and/or international legal norms with respect to the passage of space objects after re-entry into the Earth's atmosphere?

Republic of Korea

As we know, there are no regulations in the Republic of Korea which govern the passage of space objects after their re-entry into the Earth's atmosphere. No international norms are found in this regard.

Russian Federation

The Russian Federation Act on Space Activity, adopted in 1993, is somewhat innovatory in its approach to regulating such passage, providing as it does in its Article 19 that a space object of a foreign State may make a single innocent flight through airspace of the Russian Federation for the purpose of that object's entry into orbit around the Earth and subsequently into outer space, and also for the purpose of its return to Earth provided that the competent authorities of the Russian Federation are given sufficient advance notice of the time, location and path of such a flight and other information pertaining to it.

Generally speaking, such passage is not an area covered by international treaty law pertaining to space. However, individual aspects of such passage (such as international liability, rescue of astronauts, return of objects, and so forth) are either dealt with or assumed in the multilateral agreements in effect.

It would be well advised to elaborate international legal norms with regard to all issues of relevance raised by such passage.

Question 9: Are the rules concerning the registration of objects launched into outer space applicable to aerospace objects?

Republic of Korea

According to article II of the Convention on Registration of Objects Launched into Outer Space, the launching State shall register the space object by means of an entry in an appropriate registry which it shall maintain an each launching State shall inform the Secretary-General of the United Nations of the establishment of such a registry.

As the term "space object" in the Convention includes such object as is launched into orbits over Earth and outer space, it is difficult to conclude that the term "space object" in the Convention includes the aerospace object. From the position taken in the answer to question 3, it follows that a new registration procedure which reflects the characteristics of aerospace objects is necessary and to be prepared.

Russian Federation

It would be premature at the present time to make amendments or additions to the registration rules established by the 1975 Registration Convention in order to take account of the special characteristics of aerospace objects.

In the medium term, however, as the design of aerospace objects develops, such changes may be considered worth while. In particular, in addition to the information listed with respect to orbital parameters, further information could be required on the planned flight path of the aerospace object through the airspace above States' territories. It might be possible to offer a definitive opinion on this subject after further investigation of the features distinguishing the operation of aerospace objects.

The accepted notion of "launching State" will have to be analysed in the light of any new means developed in the future for launching aerospace objects. A State allowing a foreign aerospace object to be started up from its own airspace is automatically regarded, under the space law currently in effect, as one of the launching States with the concomitant international obligations under the 1972 Liability Convention.

Notes

[1] See *Official Records of the General Assembly, Fiftieth Session, Supplement No. 20* (A/50/20), para. 117.

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4. The present document was prepared by the Secretariat on the basis of information received from Member States between 16 and 18 March 1996.

REPLIES RECEIVED FROM MEMBER STATES: ITALY

Question 1: Can an aerospace object be defined as an object which is capable both of travelling through outer space and of using its aerodynamic properties to remain in airspace for a certain period of time?

Concerning the definition of an aerospace object, while we agree generally with question 1, which considers the twofold capacity to "travel" and to "fly into orbit" as a specific characteristic of the aerospace object, we nevertheless admit that this interpretation is closely linked with the developing technology, and therefore we advise, in view of a possible legal definition consistent with the technological evolution, to thoroughly examine the "aerospace object" requisites.

Question 2: Does the regime applicable to the flight of aerospace objects differ according to whether it is located in airspace or outer space?

Following the Government's opinion, and on the basis of present technical results, the so-called "aerospace object" is conceived as and destined to a unitary function, meant for activities in outer space. The operational circumstance of crossing the Earth's atmosphere does not affect the mission's singleness under a unified regime.

Question 3: Are there special procedures for aerospace objects, considering the diversity of their functional characteristics, the aerodynamic properties and space technologies used, and their design features, or should a single or unified regime be developed for such objects?

Following the Government's opinion, and consistent with the unitary solution proposed at point 2, this point lacks juridical value and should be reformulated.

Question 4: Are aerospace objects while in airspace considered as aircraft, and while in outer space as spacecraft, with all the legal consequences that follow therefrom, or does either air law or space law prevail during the flight of an aerospace craft, depending on the destination of such a flight?

Following the Government's opinion, and consistent with the unitary solution proposed at point 2, this point lacks juridical value and should be reformulated.

Question 5: Are the take-off and landing phases specially distinguished in the regime for an aerospace object as involving a different degree of regulation from entry into airspace from outer space orbit and subsequent return to that orbit?

Following the Government's opinion, and consistent with the unitary solution proposed at point 2, this point lacks juridical value and should be reformulated.

Question 6: Are the norms of national and international air law applicable to an aerospace object of one State while it is in the airspace of another State?

Keeping particularly into account the phase of re-entry into airspace and the relevant flight activities of the "aerospace object", while observing the unified character of the above mission which prevents a positive answer to question 6, it is advisable to examine such flight activity with respect to the existing rules of air navigation in order to solve possible interferences.

Question 7: Are there precedents with respect to the passage of aerospace objects after re-entry into the Earth's atmosphere and does international customary law exist with respect to such passage?

Following the Italian Government's opinion, the issue should be re-examined keeping into account solutions mentioned at points 2 and 6.

Question 8: Are there any national and/or international legal norms with respect to the passage of space objects after re-entry into the Earth's atmosphere?

Following the Italian Government's opinion, the issue should be re-examined keeping into account solutions mentioned at points 2 and 6.

Question 9: Are the rules concerning the registration of objects launched into outer space applicable to aerospace objects ?

As far as the registration of the object is concerned, although in our opinion objectives and aims provided by the existing international Convention are not fully applicable to the aerospace object, it is advisable to thoroughly examine the matter in order to check the need or opportunity for a "registration", also keeping into account the shortness of the "orbiting phase" generally attributed to the aerospace object.

Notes

[1] See *Official Records of the General Assembly, Fiftieth Session, Supplement No. 20* (A/50/20), para. 117.